PART 7.

AUSTRALIAN ORCHIDS

Sarcochilus Divitiflorus

BY R. D. FITZGERALD F.L.S.

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AUSTRALIAN ORCHIDS.

BY

R. D. FITZGERALD, F.L.S.

VOLUME I.

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1882.

THIS WORK

ON THE

AUSTRALIAN ORCHIDS

IS

Dedicated to the Memory

OF THE LATE

CHARLES DARWIN,

AS A TOKEN OF

THE VENERATION IN WHICH THAT GREAT NATURALIST AND FEARLESS EXPOUNDER OF SCIENCE IS HELD

BY

THE AUTHOR.

9 DEC 1947 Donated M. B. Ashby, Early Australian Authors

SYNOPSIS.

Genus.	By whom named.	When published (when named).	Habitat.	Species.	Why so named.	By whom named.	When and where published.	Habitat.	How fertilized, by insects or self.	Terrestrial or Epiphytal.	Australian Orchids. Vol.	Part.	No. of Page.
Acianthus ἀκη (akē) a point and ἄνθος (anthos) a flower.	R. Brown	Prodromus 1810.	N.S.W., V., S.A., Q., T.	caudatus	Tailed, from the length of the petals and sepals.	R. Brown	Prod., 321, 1810	N.S.W., T.	Ins.	Terres.	I	7	9
				exsertus	Protruding, from the heading forward of the column.	,,	,,	N.S.W., V., S.A., W.A.	,,	,,	I	1	5
				fornicatus	Forked, from the form of the sepals.	,,	,,	N.S.W., Q.	,,	,,	I	1	5
Adenochilus ἀδήν (adēn) a gland and χεῖλος (cheilos) a lip.	Hooker ,,	1853	N.S.W.	Nortoni	Norton's, discovered by James Norton, Sydney.	Fitzgerald	Aus. Orch., Vol 1, Part 2, 1876.	N.S.W.	,,	Ter near Epiphy.	I	2	2
Bolbophyllum βολβός (bolbos) a bulb and φυλλον (phyllon) a leaf.	Thouars	Hist. des Plantes, Orchidees, t. 95, 1822.	N.S.W., Q.	Shepherdi	Shepherd's, named in honor of J. W. Shepherd, of Sydney.	Mueller	Frag., III, 40, 1862, dedicated 1859.	N.S.W., Q.	,,	Epiphy.	I	5	10
Caladenia κάλλος (kallos) beautiful and ἀδήν (adēn) a gland.	R. Brown	Prod., 1810.	N.S.W., V., S.A., W.A., Q., T.	alba	White, from the colour of the flower.	R. Brown	Prod., 323, 1810	N.S.W.	,,	Terres.	I	7	1
				arenaria	Belonging to sand, found growing on sand-hills.	Fitzgerald	Aus. Orch., Vol 1, Part 7, 1882.	,,	,,	,,	I	7	8
				carnea	Flakish, from the colour of the flower.	R. Brown	Prod., 324, 1810	N.S.W., Q., V., S.A., T.	,,	,,	I	7	1
				clavigera	Club-bearing, the sepals being clavate.	A. Cunningham	Lindl., Gen. and Sp. Orch., 422.	N.S.W., V., T.	,,	,,	I	2	3
				carnea	Light-blue, from the colour of the flower.	R. Brown	Prod., 324, 1810	N.S.W., V.	,,	,,	I	5	8
				concolor	One coloured, stem and flower being red-brown.	Fitzgerald	Aus. Orch., Vol. 1, Part 7, 1882.	N.S.W.	,,	,,	I	7	8
				cucullata	Hooded, the dorsal sepal hooding the column.	,,	Aus. Orch., Vol. 1, Part 2, 1876.	,,	,,	,,	I	2	4
				deformis	Deformed, the sepals differing in shape from other Caladenias (?)	R. Brown	Prod., 324, 1810	N.S.W., V., W.A., T.	,,	,,	I	5	8
				dilatata	Dilated, from the broad lobes of the labellum.	,,	Prod., 325, 1810	N.S.W., W.A., S.A.	,,	,,	I	3	2
				dimorpha	Two-shaped, being found of two forms.	Fitzgerald	Aus. Orch., Vol. 1, Part 1, 1875.	N.S.W.	,,	,,	I	1	3
				filamentosa	With filaments, from the long points of the sepals and petals.	R. Brown	Prod., 324, 1810	N.S.W., S.A., W.A., T.	,,	,,	I	7	9
				tessellata	Tessellated, the labellum being paved with calli.	Fitzgerald	Aus. Orch., Vol. 1, Part 2, 1876.	N.S.W.	,,	,,	I	2	3
				testacea	Tiled, from crowded calli or colour of flower(?)	R. Brown	Prod., 324, 1810	N.S.W., V., T.	,,	,,	I	2	4
				Patersoni	Paterson's, in honor of the collector (in Tasmania).	,,	,,	N.S.W., T.	,,	,,	I	3	2
Calochilus κάλλος (kallos) beautiful, and ἄνθος (anthos) a flower.	R. Brown	Bot. Reg., 573.	N.S.W., Q.	veratrifolium	Veratrum-leaved, leaves being like those of a veratrum.	,,	Bot. Reg., 573	N.S.W., Q.	,,	Ter. near Epiphy.	I	4	4
Caleana after George Caley	,,	Prod., 329, 1810.	N.S.W., Q., V., W.A., T.	major	Larger, the larger of the New South Wales species.	,,	Prod., 329, 1810	N.S.W., Q., V., T.	,,	Terres.	I	6	1
				minor	Smaller, the smaller of the New South Wales species.	,,	,,	N.S.W., T.	,,	,,	I	6	1
Calochilus κάλλος (kallos) beautiful and χεῖλος (cheilos) a lip.	,,	Prod., 320, 1810.	N.S.W., Q., V., F.	campestris	Dwelling in a plain, being found on plains.	,,	Prod., 320, 1810	N.S.W., Q., T.	Self	,,	I	4	6
				paludosus	Marshy, being found in marshes	,,	,,	N.S.W.	,,	,,	I	4	6
Chiloglottis χεῖλος (cheilos) a lip and γλῶσσα (glossa) a tongue.	,,	Prod., 523, 1810.	N.S.W., Q., V., T.	formicifera	Ant-bearing, from form of gland on the labellum.	Fitzgerald	Aus. Orch., Vol. I, Part 3, 1877.	,,	Ins.	,,	I	3	9
				trapeziformis	Trapezium, shaped, from the form of the labellum.	,,	Aus. Orch., Vol. 1, Part 3, 1877.	,,	,,	,,	I	3	9
Cleistostoma κλειστός (kleistos) closed and στόμα (stoma) a mouth.	Blume	Flora Neerlandica, 362, 1825.	N.S.W., Q.	erecta	Erect, from the erect habit of the plant.	,,	Aus. Orch., Vol. 1, Part 4, 1878.	,,	,,	Epiphy.	I	4	5
				tridentatum	Three-toothed, from the form of the centre lobe of the labellum (?)	Lindley	Bot. Reg., 1838	N.S.W., Q.	,,	,,	I	5	9
Cochlidia κοχλος (kochlos) hollow and ανηρ (aner) a man.	Fitzgerald	Aus. Orch., Vol. 1, Part 7, 1882.	Q.	Smillia	Smillies, in honor of Mrs. E. J. Smillie, South Australia.	Mueller	Frag., Vol. VI, 94 1867.	Q., N.A.	,,	,,	I	7	2
Corysanthes κορυς (korys) a helmet and ἄνθος (anthos) a flower.	R. Brown	Prod., 328, 1810.	N.S.W., Q., V., S.A., W.A., T.	bicalcarata	Two-spurred, the labellum having two spurs.	R. Brown	Prod., 328, 1810	N.S.W., Q.	,,	Terres.	I	2	10
				fimbriata	Fimbriate, from the fringed margins of the labellum.	,,	,,	N.S.W.	,,	,,	I	1	4
				prionosa	Prosty, from the surface of the lower side of the leaf resembling hour-frost.	A. Cunningham	Lindl., Gen. and Sp. Orch., 393.	,,	,,	,,	I	1	4
				angulosa	Like a little finger-nail, from the shape of the flower (?)	R. Brown	Prod., 328, 1810	,,	,,	,,	I	2	10
Cryptostylis κρυπτος (krytos) to conceal and στυλος (stylos) a style.	,,	Prod., 317, 1810.	N.S.W., Q., V., W.A., T., N.S.W.	erecta	Erect, the labellum being erect	,,	Prod., 317, 1810	,,	,,	,,	I	3	8
				leptochila	Narrow lipped, from the strap shaped labellum.	Mueller	Fl. Aus., Vol. VI, 334, 1873.	,,	,,	,,	I	3	8
Cyrtostylis κυρτος (cyrtos) curved and στυλος (stylos) a style.	,,	Prod., 322, 1810.	N.S.W., Q., V., S.A., W.A., T.	reniformis	Kidney-shaped, from the shape of the leaf	R. Brown	Prod., 322.	N.S.W., V., S.A., W.A., T.	,,	,,	I	4	8
Dendrobium δενδρον (dendron) a tree and βιος (bios) life.	Swartz	Hortus Kewensis 1799.	N.S.W., Q., V., T.	aphyllum	Epiphytes, (walling other Dendrobiums(?)	R. Brown	Prod., 333, 1810	N.S.W., Q.	,,	Epiphy.	I	2	5
				Beckleri	Beckler's, after Beckler a naturalist and collector in Australia.	Mueller	Frag., Vol. V, 95, 1866.	N.S.W	,,	,,	I	7	6
				canaliculatum	Channelled, from the form of the leaf.	R. Brown	Prod., 333, 1810	Q.	,,	,,	I	3	6
				cucumerinum	Like a cucumber from the form of the leaf.	"W. S. Macleay" (Mueller).		N.S.W	,,	,,	I	6	3
				falcorostris	Falcon-beaked, from the form of the labellum.	Fitzgerald	Aus. Orch., Vol. I, Part 5, 1879	,,	,,	,,	I	5	4

Genus.	By whom named.	Where and when named	Colony.	Species.	Why so named	By whom named.	Where and when named.	Colony.	How fertilized, by insects or self.	Terrestrial or Epiphytal	Australian Orchids: Vol.	Part.	No. of Plate
Dendrobium —*continued.*	Swartz	Hortus Kewensis 1799.	N.S.W., Q., V., T.	monophyllum.	One leaf-ed, the pseudo-bulb generally having only one leaf.	Mueller	Frag., Vol. I, 189, 1859.	N.S.W.	Ins.	Epiphy.	I	6	9
				Moorei	Moore's, in honor of C. Moore, Director of Botanical Gardens, Sydney.	,,	Frag., Vol. VII, 29, 1870.	,,	,,	,,	I	7	10
				phalænopsis	Like a butterfly, from the appearance of the flowers.	Fitzgerald	Gard. Chron., Vol. XIV, 38, 1880	Q.	,,	,,	I	7	5
				rigidum	Rigid, from the habit of the plant.	R. Brown	Prod., 333, 1810	Q., N.A.	,,	,,	I	4	7
Dipodium δις (dis) double and ποδος (podos) of a foot.	R. Brown	Prod., 331, 1810.	N.S.W., Q., V., S.A., T.	punctatum	Spotted, the flowers being spotted with purple.	,,	Prod., 331, 1810	N.S.W., Q., V., S.A., T.	,,	Ter. near Epiphy.	I	7	4
Diuris δις (dis) double and ουρα (ura) a tail.	Smith	Trans. Lin. Socs. IV, 222, 1798	N.S.W., Q., V., S.A., W.A., T.	æqualis	Equal, from the equality of the three lobes of the labellum.	Mueller	Fl. Aus., Vol. VI, 328, 1873.	N.S.W.	,,	Terres.	I	2	6
				dendrobioides.	Dendrobium-like, flowers being like a dendrobium.	Fitzgerald	Aus. Orch., Vol. I, Part 7, 1882	,,	,,	,,	I	7	3
				elongata	Lengthened, from the great length of the sepals.	R. Brown	Prod., 316, 1810	N.S.W., V.	,,	,,	I	4	9
				maculata	Spotted, from the brown marks on the flowers.	Smith	Exot. Bot., Vol. I, 57, t. 30.	N.S.W., Q., V., S.A., T.	,,	,,	I	2	6
				pedunculata	Pedunculed, the flowers being on long pedicels.	R. Brown	Prod., 316, 1810	N.S.W., V., S.A., T.	,,	,,	I	7	3
				secundiflora	Flowers on one side, from the form of the raceme.	Fitzgerald	Aus. Orch., Vol I, Part 4, 1878	N.S.W.	,,	,,	I	4	9
Galeola *galea* a leather helmet.	Loureiro..	.....	N.S.W., V., Q.	cassythoides	Cassytha-like, being like a dodder-laurel.	A. Cunningham.	Lind., Bot. Reg., 1828.	N.S.W., Q., V.	,,	Ter. near Epiphy.	I	3	10
Glossodia γλωσσα (glossa) a tongue and ειδος(eidos)like.	R. Brown	Prod., 326, 1810.	.....	major	Larger, being the larger of the New South Wales species.	R. Brown	Prod., 326, 1810	N.S.W., Q., V., S.A., T.	,,	Terres.	I	4	2
				minor	Smaller, the smaller species in New South Wales.	,,	,, 1810	N.S.W., Q., V., S.A.	,,	,,	I	4	2
Lyperanthus λυπαρος (liparos) shining and ανθος (anthos) a flower.	,,	Prod., 325, 1810.	N.S.W., V., W.A., T.	ellipticus	Elliptical, from the form of the leaves.	,,	Prod., 325, 1810	N.S.W.	,,	,,	I	1	6
				nigricans	Becoming black, from the plant blackening in drying.	,,	,,	N.S.W., V., W.A., T.	,,	,,	I	4	10
				suaveolens	Sweet-scented, the flower having a sweet perfume in bright sunshine.*	,,	,,	N.S.W., V., T.	,,	,,	I	4	10
Orthoceras ορθος (orthos) straight and κερας (ceras) a horn.	,,	Prod., 317, 1810.	N.S.W., V., S.A.	strictum	Contracted, from the narrow shape of the flower.	,,	Prod., 317, 1810	N.S.W., V., S.A.	Self.	,,	I	3	1
Prasophyllum πρασος (prasos) green and φυλλον(phyllon) a leaf.	,,	Prod., 318, 1810.	N.S.W., Q., V., S.A., W.A., T.	fimbriatum	Fimbriate, from the hairs of the labellum.	,,	Prod., 319, 1810	N.S.W.	Ins.	,,	I	5	1
				flavum	Yellow, from the colour of the flower.	,,	Prod., 318, 1810	N.S.W., S.A., T.	,,	,,	I	3	7
				nigricans	Turning black, from the flowers blackening in drying.	,,	Prod., 319, 1810	N.S.W., S.A., T.	,,	,,	I	5	1
				striatum	Streaked, the flowers being streaked with purple.	,,	Prod., 318, 1810	N.S.W.	,,	,,	I	3	7
Pterostylis πτερος (pteros) a wing and στυλος (stylos)a column	,,	Prod., 326, 1810.	N.S.W., Q., V., S.A., W.A., T.	acuminata	Acuminate, the labellum being pointed.	,,	Prod., 326, 1810	,,	,,	,,	I	5	7
				Baptistii	Baptist's, from the name of the collector, J. Baptist.	Fitzgerald	Aus. Orch., Vol. I, Part 1, 1875	,,	,,	,,	I	1	2
				barbata	Bearded, labellum being bearded.	Lindley	Gen. and Sp. Orch., 388.	N.S.W., V., S.A., W.A., T.	,,	,,	I	7	7
				coccina	Red, from the colour of the flower.	Fitzgerald	Aus. Orch., Vol. I, Part 4, 1878	N.S.W.	,,	,,	I	4	3
				concinna	Neat, from the delicate form of the plant.	R. Brown	Prod., 326, 1810	N.S.W., V.	,,	,,	I	6	4
				curta	Short, from the form of the galea.	,,	,,	N.S.W., V., S.A., T.	,,	,,	I	5	6
				cycnocephala	Swan's-head, the appendage to the labellum being like a swan's head.	Fitzgerald	Aus. Orch., Vol. I, Part 2, 1876	N.S.W.	,,	,,	I	2	7
				Daintreyana	Daintrey's, having been discovered by E. Daintrey, Sydney.	Mueller	Fl. Aus., Vol. VI., 360, 1873.	,,	,,	,,	I	6	7
				hispidula	Rather rough, from the roughness on stem and flowers.	Fitzgerald	Aus. Orch., Vol. I, Part 6, 1880	,,	,,	,,	I	6	5
				longifolia	Long-leaved, from the form of the leaves.	R. Brown	Prod., 327, 1810	N.S.W., V., S.A., T.	,,	,,	I	1	1
				Mitchelli	Mitchell's, from the name of the discoverer, Sir Thomas Mitchell.	Lindley	Mitch. Trop. Aus., 365.	N.S.W., Q., V.	,,	,,	I	6	6
				mutica	Changeable, being a variable plant.	R. Brown	Prod., 328, 1810	N.S.W.	,,	,,	I	2	7
				nutans	Nodding, from the drooping of the flowers.	,,	Prod., 327, 1810	N.S.W., Q., S.A., T.	,,	,,	I	6	5
				obtusa	Obtuse, from the blunt point of the labellum.	,,	,,	N.S.W., T.	,,	,,	I	6	7
				ophioglossa	Adder-tongued, labellum being forked.	,,	Prod., 326, 1810	N.S.W., Q.	,,	,,	I	6	4
				parviflora	Small-flowered, from the size of the flowers.	,,	Prod., 327, 1810	N.S.W., Q., V., T.	,,	,,	I	7	7
				pedoglossa	Rubber-tongued, labellum being like an ancient rudder.	Fitzgerald	Aus. Orch., Vol. I, Part 3, 1877	N.S.W.	,,	,,	I	3	5
				pedunculata	Pedunculed, the flowers being on pedicels.	R. Brown	Prod., 327, 1810	N.S.W., T.	,,	,,	I	5	6
				reflexa	Reflexed, from the point of the labellum being curved.	,,	,,	N.S.W., V., W.A.	,,	,,	I	5	7
				rufa	Red, from the colour of the flower.	,,	,,	N.S.W.	,,	,,	I	2	8
				striata	Striate, the flowers being streaked with green.	Fitzgerald	Aus. Orch., Vol I, Part 3, 1877	,,	,,	,,	I	3	5
				squamata	Scaly, from the numerous bracts on the flower-stem.	R. Brown	Prod., 327, 1810	,,	,,	,,	I	6	6
				truncata	Cut-short, from the truncate form of the galea.	Fitzgerald	Aus. Orch., Vol. I, Part 4, 1878	,,	,,	,,	I	4	3
				Woollsii	Woolls', from the discoverer, Dr. Woolls, Richmond.	,,	Aus. Orch., Vol. I, Part 2, 1876	,,	,,	,,	I	2	8
Sacoglabium σακος sacos a sack and labium a lip.	Lindley	.....	N.S.W., Q.	Hillii	Hill's, from the discoverer, Walter Hill, Director of the Botanical Gardens, Brisbane.	Mueller	Frag., Vol. I, 192, 1859.	N.S.W., Q.	,,	Epiphy.	I	2	9
Sarcochilus σαρξ (sarx) flesh and χειλος(cheilos) a lip.	R. Brown	Prod., 332, 1810.	N.S.W., T., V.	divitiflorus	Rich-flowered, from number and beauty of the flowers.	,,	Fl. Aus., Vol. VI, 292, 1873.	,,	,,	,,	I	6	10
				falcatus	Falcate, from the sickle-form of the leaves.	R. Brown	Prod., 332, 1810	N.S.W.	,,	,,	I	5	3
				Fitzgeraldii	Fitzgerald's, from the name of the discoverer, R. D. Fitzgerald, Sydney.	Mueller	Frag., Vol. VII, 97 and 145, 1870	,,	,,	,,	I	3	3
				Hillii	Hill's, in honor of W. Hill, Director of the Botanic Gardens, Brisbane.	,,	Frag., Vol. II, 94, 1860.	N.S.W., Q.	,,	,,	I	5	5
				montanus	Mountain, found growing on the mountains.	Fitzgerald	Aus. Orch., Vol. I, Part 5, 1879	N.S.W.	,,	,,	I	5	3

Genus.	By whom named.	When and when named.	Colony.	Species.	Why so named.	By whom named.	When and when named.	Colony.	How fertilized, by insects or self.	Terrestrial or Epiphytal.	Australian Orchids. Vol.	Part.	No. of Plate.
Sarcochilus —*continued.*	R. Brown	Prod.,332. 1810.	N.S.W., Q., T., V.	olivaceus	Olive-like, leaves being like those of an olive (?)	Lindley	Bot. Reg., 1839, Misc. 32.	N.S.W., Q.	Ins.	Epiphy.	1	5	5
				parviflorus	Small-flowered, probably smallest known when named.	,,	Bot. Reg., 1838, Misc. 34.	N.S.W., V., T.	,,	,,	1	3	4
Spathoglottis σπαθη (spathe) a spathe and γλωσσα (glossa) a tongue.	Blume	Bijdragen, 400, 1825	Q.	Paulinæ.	Paulina, in honour of Mlle. Paulina Richemond of Paris.	Mueller	Frag., Vol. VI, 95, 1867.	Q.	Self or Ins.	Ter, near Epiphy.	1	6	8
Spiranthes σπειρα (spira) a screw and ανθος (anthos) a flower	L. C. Richard	Mems. du Museum Paris, IV 40, 1818	N.S.W., Q., V., T.	Australis	Australian, the species found in Australia.	R. Brown	Prod., 319, 1810	N.S.W., Q., V., T.	Self...	Terres.	1	2	1
Thelymitra... θηλυς (thelus) female and μιτρα (mitra) a cap.	Forster	.....	N.S.W., Q., V., S.A., W.A., T.	carnea	Pink, from the colour of the flower.	,,	Prod., 314, 1810	N.S.W., V., T.	,,	,,	1	6	2
				circumsepta	Inclosed, from the wings of the column surrounding the stigma.	Fitzgerald	Aus. Orch., Vol. I, Part 4. 1878.	N.S.W.	,,	,,	1	4	1
				longifolia	Long-leaved, from the long leaves on the flower-stem.	Forster	Char. Gen., 98, t. 49.	N.S.W., S.A., V., T.	,,	,,	1	6	2
				media	Intermediate (between T. ixioides and T. canaliculata ?)	R. Brown	Prod., 314, 1810	N.S.W., T.	,,	,,	1	4	1
				megcalyptra	Large-hooded, the hood of the column being larger than in others.	Fitzgerald	Aus. Orch., Vol. I, Part 5, 1879.	N.S.W.	Ins.	,,	1	5	2
				nuda	Naked, the central lobe of the hood being smooth.	R. Brown	Prod., 314, 1810	N.S.W., W.A.	Self	,,	1	5	2
				pauciflora	Few-flowered, producing generally only one flower.	,,	,,	N.S.W., S.A., W.A.	,,	,,	1	6	2

SYNOPSIS OF DISTRIBUTION.

Genus.	Species.	Sub-locality.	Locality.	Colony.	Collector.	Time of flowering.	Localities recorded in the *Flora Australiensis*.	Australian Orchids. Vol.	Part.	No. of Plate
Acianthus	caudatus	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	August	*Tasmania*, J. D. Hooker	I	7	9
		Kanangra	Blue Mountains	,,		,,				
		Pye's Creek	Parramatta	,,	Dr. Woolls					
,,	exsertus	Hunter's Hill	Sydney	,,	Fitzgerald	March	*Victoria*, Wimlee River, Robertson; Seeler's Creek, Mueller; Portarlington, Robertson	I	1	5
		Mount Wilson	Blue Mountains	,,		14 March				
			Parramatta	,,	Dr. Woolls					
			Spencer's Gulf	W.A. S.A.	Tepper (Mueller Professor R. Tate					
,,	fornicatus	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	Feb. and March	*Queensland*, Brisbane River, Mueller; Rockingham Bay, Dallachy; Mount Wheeler, Thozet	I	1	5
		Ballina	Richmond River	,,	,,	April				
		Mount Wilson	Blue Mountains	,,	,,	23 February				
			Cooyal	,,	A. G. Hamilton	20 April				
			Guntawang	,,	,,	June to Sept.				
			Moruya	,,	Bell	27 June				
			Parramatta	,,	Dr. Woolls					
Adenochilus	Nortoni	Mount Victoria	Blue Mountains	,,	Fitzgerald	December		I	2	2
		Woolford	,,	,,	,,					
		Kaboomba	,,	,,	,,					
Bolbophyllum.	Shepherdi		Macleay River	,,	,,	October	*New South Wales*, Hastings and Clarence Rivers, Beckler; Hunter River, Leichhardt; Illawarra, Shepherd	I	3	10
		Redbank Creek	Perton	,,	,,	November				
			Bellinger River	,,	,,	October				
		Bellenden	Ker Ranges	Q.	Mueller					
Caladenia	alba	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	August		I	7	1
		Pye's Creek	Parramatta	,,	,,					
			Liverpool	,,	Canon King					
,,	arenaria	Denliquin Station	Deniliquin	,,	Fitzgerald	25 September		I	7	8
			Bethungra	,,	,,	1 October				
		Cunningham Plains	Murrumburrah	,,	,,	5 ,,				
		Bandelcert Hills (very local)	Guntawang	,,	A. G. Hamilton	Oct. to Nov.				
			Yass	,,	C. Jenkins	9 October				
,,	carnea	Hunter's Hill	Sydney	,,	Fitzgerald	September	*New South Wales*, Richmond River, Henderson; New England, C. Stuart; Twofold Bay, Mueller. *Queensland*, Keppel and Shoalwater Bays, R. Brown; Brisbane to Wide Bay, Leichhardt and Mueller; Rockhampton, O'Shanesy; Nerkool Creek, Bowman; Darling Downs, Law; Mount Elliott, Fitzalan. *Victoria*, Glenelg to Gippsland, Mueller and Robertson. *South Australia*, Glenelg to St. Vincent's Gulf, Mueller; Kangaroo Island, Waterhouse. *Tasmania* generally, J. D. Hooker	I	7	1
		Pye's Creek	Parramatta	,,	,,	,,				
		Mount Wilson	Blue Mountains	,,	,,	25 October				
			Coolamundra	,,	,,	23 August				
		Deniliquin Station	Deniliquin	,,	,,	25 September				
			Bethungra	,,	,,	1 October				
		Cunningham Plains	Murrumburrah	,,	,,	2 ,,				
		Mount Lofty Range	Adelaide	S.A.	,,	24 ,,				
			Hobart	T.	F. J. Paterson	3 November				
,,	clavigera		Bethungra	N.S.W.	Fitzgerald	1 October	*New South Wales*, Bathurst, A. Cunningham; *Victoria*, Ballarat, Glendonning, Malden, Mrs. Nott. *Tasmania*, Circular Head, Gunn; Tasman River, Archer; Flinder's Island, Milligan	I	2	3
		Bandelcert Hills	Guntawang	,,	A. G. Hamilton	Sept. to October				
			Mudgee	,,	Dr. Woolls					
		Reedy Creek	,,	,,	G. Sheaffe	28 September				
			Yass	,,	C. Jenkins	9 October				
			Hobart	T.	F. J. Paterson	3 November				
,,	carnea	Hunter's Hill	Sydney	N.S.W.	Fitzgerald		*New South Wales*, New England, C. Stuart; Twofold Bay, Mueller. *Victoria*, north of Wombeyne River.	I	5	8
			Cootamundra	,,	,,	23 August				
			Guntawang	,,	A. G. Hamilton	Aug. to Oct.				
			Liverpool	,,	Canon King					
			Parramatta	,,	Dr. Woolls					
		Murray River	To S. A. boundary	V.	Nancarrow (Mueller)					
,,	carnea		Albury	N.S.W.	Wood	10 October		I	7	8
,,	carnea var. lata		Molong	,,	Dr. Ross	20 ,,		I	2	4
			Bowrowa	,,	G. Sheaffe	30 ,,				
		Bringanbil Hills (very local)	Guntawang	,,	A. G. Hamilton	13 ,,				
			Cootamundra	,,	Fitzgerald	23 August	*New South Wales*, Albury, Beattie. *Victoria*, Portland, Allitt; Port Phillip, Gunn and Adamson; Mangatta Range and Genoa River, Mueller; Ararat, Green; Burra Burra, Hunteracker. *Tasmania* generally, J. D. Hooker; Port Dalrymple, R. Brown; Flinder's Island, Milligan. *South Australia*, the Murray to St. Vincent's Gulf, Mueller; York Peninsula, Fowler; Busmit Flat, Schulzen	I	5	8
,,	deformis		Bowrowa	,,	G. Sheaffe	20 September				
		Cunningham Plains	Murrumburrah	,,	D. H. Campbell	15 ,,				
		Mahogany Creek	York	W.A.	Fitzgerald	26 August				
,,	dilatata	Hunter's Hill	Sydney	N.S.W.	,,	October		I	3	2
		Round Swamp	Uraa	,,	,,	24 August				
		Cunningham Plains	Murrumburrah	,,	,,	2 October				
			Guntawang	,,	A. G. Hamilton	Sept. to Nov.				
			Molong	,,	Dr. Ross	November				
			Bowrowa	,,	G. Sheaffe	3 October				
		Darlington	Bunbury	W.A.	Fitzgerald	September				
		Mount Lofty	Adelaide	S.A.	,,	24 October				
,,	diversifolia	Hasan's Walls	Bowenfels	N.S.W.	,,	October		I	1	3
		Mount Wilson	Blue Mountains	,,	,,	25 ,,				
		Mount Victoria	,,	,,	,,	1 September				
			Bowral	,,	G. Sheaffe	6 October				
,,	filamentosa		Mudgee	,,	Dr. Woolls	August	*Tasmania*, Port Dalrymple, Paterson and R. Brown; George Town, Archer; Southport, C. Stuart. *Western Australia*, Rivoli Bay, Mueller.	I	7	9
			Bowrowa	,,	G. Sheaffe	10 September				
			Warrah	,,	E. Merewether	15 September				
			Guntawang	,,	A. G. Hamilton	Aug. to Sept.				
		Swan River	Perth	W.A.	Fitzgerald	July				
		Champion Bay	Geraldton	,,	,,	August				
		Mount Lofty Range	Adelaide	S.A.	Prof. R. Tate					
,,	tessellata	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	September		I	2	3
		Cunningham Plains	Murrumburrah	,,	D. H. Campbell	15 ,,				
			Liverpool	,,	G. Sheaffe	25 October				
,,	testacea	Hunter's Hill	Sydney	,,	Fitzgerald	August	*Victoria*, Port Phillip, Gunn; *Tasmania*, Port Dalrymple, R. Brown; South Port, C. Stuart.	I	2	4
		Mount Wilson	Blue Mountains	,,	,,	25 October				
,,	Patersoni		Bethungra	,,	Fitzgerald	25 August	*Tasmania*, Port Dalrymple, Paterson	I	3	2
			Bowrowa	,,	G. Sheaffe	20 October				
Calanthe	veratrifolium	Macleay River	Kempsey	,,	Fitzgerald	January	*Queensland*, Rockingham Bay, Dallashy; Brisbane River, Mueller.	I	4	4
		Bulli Pass	Illawarra	,,	,,	December				
			Bellenger River	,,	,,					
		Cudgen	Tweed River	,,	,,	20 ,,				

Genus.	Species.	Sub-locality.	Locality.	Colony.	Collector.	Time of flowering.	Localities recorded in the *Flora Australiensis.*	Australian Orchids. Vol.	Part.	No. of Plate.
Calanthe *continued.*	veratrifolium *continued.*	Richmond River	Ballina	N.S.W.	Fitzgerald	November				
		Hastings River	Port Macquarie	,,	,,	December				
			Conjola	,,	G. Sheaffe	5 January				
			Kurrajong	,,	Dr. Woolls	4 ,,				
Calema	major	Hunter's Hill	Sydney	,,	Fitzgerald	Oct. and Nov.	*New South Wales*, New England, C. Stuart; *Queensland*, Moreton Bay, Mueller; *Victoria*, Mount Sturgeon, Mount Abrupt and Latobe River, Mueller; Mount William, Sullivan; Gippsland, Walter. *Tasmania*, Rocky Cape, Gunn; Cheshunt, Archer; Southport, C. Stuart; South Huon, Oldfield; N. W. Bay, Milligan.	I	6	1
		Mount Wilson	Blue Mountains	,,	,,	22 December				
		Kedcumba	,,	,,	,,	30 October				
		Woodford	,,	,,	,,	4 ,,				
			Parramatta	,,	Dr. Woolls					
			Kurrajong	,,	,,	4 January				
			Lithgow	,,	Wilkinson	17 December				
			Chiltern	V.	Eustace (Mueller)					
,,	minor	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	November	*Tasmania*, Hobart, Gunn	I	6	1
			Lithgow	,,	Wilkinson	17 December				
		Biraganbil (very rare)	Guntawang	,,	A. G. Hamilton	November				
Calochilus	campestris	Hunter's Hill	Sydney	,,	Fitzgerald	October	*Tasmania*, Rocky Cape and Woolnorth, Gunn; Port Sorell, Archer; Huon River, Oldfield; Oyster Cove, Milligan; South Port, A. Stuart. *Queensland*, Shoalwater Bay, R. Brown	I	4	6
		Mount Wilson	Blue Mountains	,,	,,	25 ,,				
			Lithgow	,,	Wilkinson	27 ,,				
			Boorowa	,,	Sheaffe	31 ,,				
			Nowra	,,	,,	1 September				
		Biraganbil (rare)	Guntawang	,,	A. G. Hamilton	September				
			Hobart	T.	F. J. Paterson	26 November				
			Condamine River	Q.	C. Hartmann (Mueller)					
,,	paludosus	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	October	*New South Wales*, Hunter River, R. Brown	I	4	6
		Mount Wilson	Blue Mountains	,,	,,	25 ,,				
			Newcastle	,,	E. Merewether	29 August				
Chiloglottis	formicifera		Kurrajong	,,	Fitzgerald	5 September		I	3	9
			Liverpool	,,	Canon King	September				
,,	trapeziformis		,,	,,	,,	4 October		I	3	9
			Bowral	,,	G. Sheaffe	6 ,,				
		Biraganbil Hills	Guntawang	,,	A. G. Hamilton	September				
Cleisostoma	crecta	Mount Eliza	Howe's Island	,,	Fitzgerald	December		I	4	5
,,	tridentatum		Macleay River	,,	,,	November	*New South Wales*, Hastings and Clarence Rivers, Beckler; New England, C. Stuart; *Queensland*, Brisbane River, Hill and Bailey; Wide Bay, Leichhardt	I	5	9
		Bulli Pass	Illawarra	,,	,,	December				
		Pittwater	Broken Bay	,,	,,	20 November				
		Stone-quarry Creek	Picton	,,	,,	2 December				
			Bowral	,,	G. Sheaffe	10 ,,				
			Mount Dromedary	,,	Miss M. Bate (Mueller)					
		Bent's Basin	Nepean River	,,	Dr. Woolls					
			Towoomba	Q.	C. Hartmann (Mueller)					
Cælandria	Smilliæ		Possession Isld.	,,	Captain Broomfield	16 October	*Queensland*, Rockingham Bay, Dallachy	I	7	2
			Torres Straits	,,	Sir W. Macarthur					
			Cairns	,,	W. Hill (Mueller)					
Corysanthes	bicalcarata	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	June	*Queensland*, Brisbane River, Hills; Rockhampton, Thozet	I	2	10
			Kurrajong	,,	,,	10 ,,				
		Ball Hill	Richmond River	,,	,,	9 May				
		Woodford	Blue Mountains	,,	W. S. Campbell	3 ,,				
			Parramatta	,,	Dr. Woolls					
,,	fimbriata	Hunter's Hill	Sydney	,,	Fitzgerald	June		I	1	4
		Redbank Creek	Picton	,,	,,	July				
		Pittwater	Broken Bay	,,	,,	June				
			Yass	,,	S. A. Fox	8 September				
,,	prunosa	Hunter's Hill	Sydney	,,	Fitzgerald	June		I	1	4
			Moruya	,,	Bell	27 June				
,,	unguiculata	Hungry Hill	Strond	,,	R. W. Thompson	30 September				
		Lane Cove	Sydney	,,	Fitzgerald	July		I	2	10
		Long Bay	,,	,,	,,	20 July				
Cryptostylis	erecta	Hunter's Hill	,,	,,	,,	December		I	3	8
		Mount Wilson	Blue Mountains	,,	,,	10 December				
			Newcastle	,,	E. Merewether	14 November				
,,	leptochila	Mount Tomah	Blue Mountains	,,	Fitzgerald	20 December	*New South Wales*, Springwood, R. Cunningham; Kurrajong, Mrs. Calvert.	I	3	8
		Mount Wilson	,,	,,	,,	10 ,,				
			Mittagong	,,	,,	2 January				
			Moruya	,,	G. Sheaffe	1 December				
Cyrtostylis	reniformis	Hunter's Hill	Sydney	,,	Fitzgerald	July	*New South Wales*, Twofold Bay, Mueller. *Tasmania* (generally), J. D. Hooker. *Victoria*, Wendu Vale, Robertson; Portland, Allitt; Station Peak, Mueller. *South Australia*, Encounter Bay, Mueller. *Western Australia*, Vain River, Oldfield; Rottenest Island, Preiss.	I	4	8
		Redbank Creek	Picton	,,	,,	10 July				
			Guntawang	,,	A. G. Hamilton	September				
		Mount Melville	Albany	W.A.	Fitzgerald	13 July to 20 Sep.				
		St. Werburghs	Hay River	,,	,,	September				
		Fresh-water Bay	Perth	,,	,,	,,				
			Freemantle	,,	,,	August				
		Mount Lofty	Adelaide	S.A.	,,	October				
Dendrobium	æmulum	Macleay River	Kempsey	N.S.W.	,,	September	*New South Wales*, New England, C. Stuart; Hastings River, Beckler; Fashmond River, Henderson; *Queensland*, Brisbane River, Bailey.	I	2	5
		Cudgen	Tweed River	,,	,,	,,				
		Wallis Creek	M'Leay River	,,	,,	2 October				
			Lake Macquarie	,,	,,	September				
		Cedar Creek	Picton	,,	,,	,,				
		The Basin	Pitt Water	,,	,,	,,				
		Mount Wilson	Blue Mountains	,,	,,	,,				
			Mount Dromedary	,,	Miss M. Bate (Mueller)					
			Parramatta	,,	Dr. Woolls					
			Towoomba	Q.	C. Hartmann (Mueller)					
			Trinity Bay	,,	W. Hill (Mueller)					
,,	Beckleri	Clybucca Creek	Macleay River	N.S.W.	Fitzgerald	November	*New South Wales*, New England, C. Stuart.	I	7	6
			Bellinger River	,,	,,	,,				
		Hastings River	Port Macquarie	,,	,,	,,				
,,	canaliculatum		Rockingham Bay	Q.	Carron	,,	*Queensland*, Endeavour River, Banks and Solander.	I	3	6
,,	cucumerinum	Camden Park	Camden	N.S.W.	Fitzgerald	,,		I	6	3
		Stonquarry Creek	Picton	,,	,,	,,				
		Browulow Hill	Camden	,,	Dr. Woolls	,,				
			Towoomba	Q.	C. Hartmann (Mueller)					
,,	falcorostris	Mount Banda Banda	Macleay River	N.S.W.	Fitzgerald	,,		I	5	4
,,	monophyllum	Cudgen	Tweed River	,,	,,	March	*New South Wales*, Clarence River, Beckler. *Queensland*, Brisbane River, A. Cunningham and W. Hill; Glasshouse Mountain, Bryerley	I	6	9
		Richmond River	Ballina	,,	,,	,,				
,,	Moorei	Mount Gower	Howes Island	,,	,,	April to Aug.		I	7	10
,,	phalænopsis		Cairns	Q.	Captain Broomfield	,,		I	7	5
,,	rigidum		Rockingham Bay	,,	F. Bailey (Mueller)	January	*Queensland*, Endeavour River, Banks and Solander	I	4	7
			Daintree River	,,	W. Hill (Mueller)					
Dipodium	punctatum	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	December	*New South Wales*, Hastings and Clarence, Beckler; New England, C. Stuart, Armidale, Perrott. *Queensland*, Brisbane River, Mueller; Condamine River, Leichhardt; Rockhampton, O'Shanesy; Burdekin River and Mount Elliott, Fitzalan. *Victoria*, Upper Yarra and Dandenong Range, Mueller; Glenelg River, Robertson. *Tasmania*, Circular Head, Gunn; Port Sorell and Cheshunt, Archer	I	7	4
		Mount Wilson	Blue Mountains	,,	E. Merewether	November				
			Richmond	,,	Dr. Woolls (after a drought)	11 January				
						28 May				
			Parramatta	,,	Dr. Woolls					
		Mount Lofty	Adelaide	S.A.	Drilfild	9 January				
,,	(squamatum ?)		Guntawang	N.S.W.	A. G. Hamilton	Nov. to Jan.				
Diuris	æqualis		Liverpool	,,	Fitzgerald	November	*New South Wales*, Richlands, M'Arthur	I	2	6
			Merimbula	,,	Browu	September				

Genus	Species	Locality	Locality	Colony	Collector	Date of flowering.	Localities recorded in the Synopsis of Australian Orchids.	Australian Orchids. Vol.	Part.	No. of Plate.
Diuris *continued*	dendrobioides	Centinghatie Plains	Murrumburrah	N.S.W.	Fitzgerald	2 October		1	7	3
			Guntawang	,,	A. G. Hamilton	September				
	elongata	Hunter's Hill	Sydney	,,	Fitzgerald	,,				
		Newport	Pittwater	,,	,,	,,	*New South Wales*, Clarence River, Wilcox Ranges, M'Arthur; Mudgee, Dr. Woolls; Murrumbidgee, Nolan. *Victoria*, Port Phillip, Gunn and Mueller; Wendu Vale, Robertson; Yarra, Mount Alexander, Mount Abrupt, Mueller; Gippsland, Walter	1	4	9
		Centinghatie Plains	Murrumburrah	,,	,,	2 October				
			Albury	,,	,,	10 ,,				
			Bowral	,,	G. Sheaffe	6 ,,				
			Yass	,,	C. Jenkins	9 ,,				
			Barny Downs Creek	,,	Drummond	25 ,,				
			Guntawang	,,	A. G. Hamilton	Sept. to Decr.				
			Parramatta	,,	Dr. Woolls	,,				
	maculata	Hunter's Hill	Sydney	,,	Fitzgerald	September	*New South Wales*, New England, C. Stuart; Twofold Bay, Mueller. *Victoria*, Wendu Vale, Robertson; Port Phillip, Gunn; Forest Creek, Sealer's Cove, Mueller; Grampians, Fisher. *Tasmania* generally, J. D. Hooker. *South Australia*, Bugle, Barossa and Lofty Ranges, Mueller; York Peninsula, Fowler	1	2	6
			Bowenfels	,,	,,	,,				
			Cootamundra	,,	,,	23 August				
			Bethungra	,,	,,	1 October				
		Mount Victoria	Blue Mountains	,,		3 November				
			Guntawang	,,	A. G. Hamilton	Sept. and Oct.				
			Lithgow	,,	Wilkinson	6 November				
			Newcastle	,,	E. Mercwether	29 August				
		Reedy Creek	Jugiong	,,	G. Sheaffe	28 September				
			Yass	,,	C. Jenkins	9 October				
			Parramatta	,,	Dr. Woolls	,,				
			Hobart	T.	F. J. Paterson	,,				
	pedunculata		Liverpool	N.S.W.	Fitzgerald	October	*New South Wales*, Macquarie River and Vale of Clyde, A. Cunningham. *Victoria*, Wendu Vale, Robertson; Portland and Melbourne, Mueller; Gippsland, Walter; Grampians, Fisher. *Tasmania* (generally), J. D. Hooker. *South Australia*, Mount Gambier to St. Vincent's Gulf, Mueller and Behr.	1	7	3
		Wee Wa	Cobaiblo River	,,		24 September				
		Cunningham Plains	Murrumburrah	,,	,,	2 October				
			Bowowa	,,	G. Sheaffe	29 September				
		Reedy Creek	Jugiong	,,	,,	28 ,,				
			Guntawang	,,	A. G. Hamilton	Aug. to Sept.				
			Yass	,,	C. Jenkins	9 October				
	sulphurea	Williamtown	Macleay River	,,	Fitzgerald	November		1	4	9
			Murrumbidgee River	,,	Dr. Woolls	12 March				
Lidbeckia	pachyphylla	Hunter's Hill	Sydney	,,	Fitzgerald	October	*New South Wales*, New England, C. Stuart; *Queensland*, Moreton Island, Mueller.	1	3	10
		Hastings River	Port Macquarie	,,	,,	November				
			Liverpool	,,	Canon King	October				
			Paterson River	,,	R. W. Thompson	30 September				
			Source of Marana River	Q.	C. Barber (Mueller)	,,				
Glossodia	major	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	July and Aug.	*New South Wales*, N. W. Interior, Fraser; New England, C. Stuart; Twofold Bay, Mueller; *Victoria*, Glenelg River, Robertson; Portland, Allitt; Port Phillip, Mueller; Ballarat, Glendunning. *Tasmania* (generally), J. D. Hooker; *South Australia*, Bugle Ranges, Mueller; Encounter Bay, Whittaker.	1	4	2
		Mount Wilson	Blue Mountains	,,	,,	25 October				
			Bethungra	,,	,,	,,				
			Bringong	,,	,,	28 September				
			Cootamundra	,,	,,	1 October				
			Guntawang	,,	A. G. Hamilton	Aug. to Oct.				
			Mermbula	,,	C. Brown	27 September				
		Reedy Creek	Jugiong	,,	G. Sheaffe	28 September				
			Bowral	,,	,,	6 October				
		Cunningham Plains	Murrumburrah	,,	D. H. Campbell	15 September				
			Yass	,,	C. Jenkins	9 October				
		Mount Lofty	Adelaide	S.A.	Fitzgerald	24 October				
			Hobart	T.	F. J. Paterson	,,				
	major	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	July and Aug.	*New South Wales*, New England, C. Stuart; Twofold Bay, Mueller. *Victoria*, Genoa River, Mueller. *Queensland*, Moreton Bay, Leichhardt.	1	4	2
		Mount Lofty	Adelaide	,,	Prof. Tate	,,				
Lyperanthus	Alphitonia	Sailor's Bay	Sydney	,,	Fitzgerald	December		1	1	6
		Mount Victoria	Blue Mountains	,,	,,	November				
		Katoomba	,,	,,	,,	December				
		Woodford	,,	,,	,,	November				
	nigricans	Hunter's Hill	Sydney	,,	,,	August	*Victoria*, between Melbourne and Brighton, Mueller; Genoa Creek, Waller. *Tasmania*, George Town, Archer; Rocky Cape Milligan. *Western Australia*, Esperance Bay and Cape Le Grand, Maxwell; Darling Range, Preiss	1	4	10
			Albury	W.A.	,,	September				
			Mahogany Creek	,,	,,	,,				
		Swan River	Perth	,,	,,	,,				
			Bunbury	,,	,,	September				
			Marblerup	,,	,,	,,				
			Wilson's Inlet	,,	,,	,,				
		Mount Lofty	Adelaide	S.A.	,,	24 October				
	suaveolens	Hunter's Hill	Sydney	N.S.W.	,,	September	*New South Wales*, New England, C. Stuart; *Victoria*, East Gippsland, Walter; *Tasmania*, Dentrecastreanx Channel, Milligan	1	4	10
			Lithgow	,,	Wilkinson	27 October				
			Bowowa	,,	G. Sheaffe	30 ,,				
			Newcastle	,,	E. Mercwether	29 August				
		Beaubassett Hills (rare)	Guntawang	,,	A. G. Hamilton	Sept. to Oct.				
			Parramatta	,,	Dr. Woolls	,,				
Orthoceras	strictum	Hunter's Hill	Sydney	,,	Fitzgerald	December	*New South Wales*, Illawarra, A. Cunningham. *Victoria*, Dandenong, Mueller; Glenelg Valley, Robertson. *South Australia*, St. Vincent's Gulf, Mueller and Behr; Spencer's Gulf, Wilhelmi.	1	3	1
		Mount Wilson	Blue Mountains	,,	,,	25 October				
			Lithgow	,,	Wilkinson	8 January				
			Moruya	,,	G. Sheaffe	1 December				
			Parramatta	,,	Dr. Woolls	,,				
Prasophyllum	fimbriatum	Five Dock	Sydney	,,	Fitzgerald	March		1	5	1
			Bowenfels	,,	,,	April				
		Mount Wilson	Blue Mountains	,,	,,	14 March				
			Parramatta	,,	Dr. Woolls	,,				
	flavum	Lawson	Blue Mountains	,,	Fitzgerald	December	*New South Wales*, Berrima, Mrs. Calvert; Durval, Leichhardt; New England, C. Stuart. *Tasmania*, Chesluntt, Archer; Oyster Cove, Milligan; Huon River, Oldfield; Southport, C. Stuart. *South Australia*, Port Lincoln, R. Brown.	1	3	7
		Mount Wilson	,,	,,	E. Mercwether	11 January				
	nigricans	Hunter's Hill	Sydney	,,	Fitzgerald	April	*South Australia*, Port Lincoln, R. Brown. *Tasmania*, Oyster Cove, Milligan; Southport, C. Stuart.	1	5	1
		Mount Wilson	Blue Mountains	,,	,,	,,				
		Springwood	,,	,,	,,	,,				
	striatum	Hunter's Hill	Sydney	,,	,,	,,		1	3	7
		Weatwerth	Blue Mountains	,,	,,	March				
		Mount Wilson	,,	,,	,,	14 ,,				
			Kiama	,,	G. Sheaffe	7 April				
Pterostylis	acuminata	Hunter's Hill	Sydney	,,	Fitzgerald	May		1	5	7
		Goonamatta	Port Hacking	,,	,,	April				
			Liverpool	,,	Canon King	2 March				
			Lithgow	,,	Wilkinson	10 March				
	Baptistii	Hen and Chicken Bay	Sydney	,,	Fitzgerald	,,		1	1	2
			Newcastle	,,	E. Mercwether	29 August				
	barbata		Cootamundra	,,	Fitzgerald	1 October	*Victoria*, Wendu Vale, Robertson. *Tasmania* generally, J. D. Hooker. *South Australia*, Mount Lofty, Mueller. *Western Australia*, Swan River, Drummond; Albany, Muir; Mount Baker, Mueller.	1	7	7
			Hobart	T.	F. J. Paterson	3 November				
			Port Phillip	V.	Mueller	,,				
	cucullata	Hassan's Walls	Bowenfels	N.S.W.	Fitzgerald	,,		1	4	3
	curtisiana	Hunter's Hill	Sydney	,,	,,	July	*Victoria*, towards Brighton, Mueller	1	6	4
			Guntawang	,,	A. G. Hamilton	June to Sept.				
			Liverpool	,,	Canon King	,,				
			Parramatta	,,	Dr. Woolls	,,				
			Grampians	V.	Sullivan (Mueller)	,,				

Genus.	Species	Subdivision.	Locality.	Colony.	Collector.	Time of flowering.	Localities recorded in the Flora Australiensis.	Australian orchids. Vol.	Part.	No. of Plate.
Pterostylis *continued.*	curta	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	August	*New South Wales*, Twofold Bay, Mueller Herb. Wendu Vale, Robertson; Melbourne, Adamson; Daraluu Creek and Mount Disappointment, Mueller. *Tasmania* generally, J. D. Hooker; Port Dalrymple, R. Brown. *South Australia*, Barossa, Lofty, and Bugle Ranges, Mueller.	1	5	6
,,	aycnoscepala	Peechelba Station	Peechelba	,,	Fitzgerald	25 September		1	2	7
		Cunningham Plains	Murrumburrah	,,	,,	2 October				
			Boorowa	,,	G. Sheaffe	4 ,,				
			Guntawang	,,	A. G. Hamilton	Aug. to Oct.				
,,	Daintreyana	Berry's Bay	Sydney	,,	E. Daintrey	May		1	6	7
		Gore's Creek		,,	Fitzgerald	,,		1	6	5
,,	hispidula	Hunter's Hill		,,	,,	,,				
		Springwood	Blue Mountains	,,	,,	April				
		Mount Wilson		,,	,,	14 March				
		Ham Common	Richmond	,,	Dr. Woolls	15 May				
,,	longifolia	Hunter's Hill	Sydney	,,	Fitzgerald	August	*Victoria*, Forest Creek, Mount Disappointment, Wilson's Promontory, and Nangatta Range, Mueller; Grampian Hills, Fisher; Gippsland, Walter. *Tasmania* generally, J. D. Hooker. *South Australia*, Mount Lofty Range, Mueller.	1	1	1
		Stone-quarry Creek	Picton	,,	,,	September				
		Mount Wilson	Blue Mountains	,,	,,	25 October				
		Bulli Pass	Illawarra	,,		5 September				
			Boorowa	,,	G. Sheaffe	4 October				
			Newcastle	,,	E. Merewether	29 August				
		Ham Common	Richmond	,,	Dr. Woolls	15 May				
			Moruya	,,	Bell	27 June				
		Biraganbil Hills*	Guntawang	,,	A. G. Hamilton	June to Aug.				
			Liverpool	,,	Canon King					
			Parramatta	,,	Dr. Woolls					
,,	Mitchelli		Cootamundra	,,	Fitzgerald	23 August	*Victoria*, Mount Kennedy, on the Maranoa. Sir T. Mitchell.	1	6	6
			Guntawang	,,	A. G. Hamilton	Sept. to Nov				
			Rockhampton	Q.	Dr. Woolls					
,,	rantica	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	October		1	2	7
		Cunningham Plains	Murrumburrah	,,	,,	2 ,,				
			Liverpool	,,	,,	September				
			Guntawang	,,	A. G. Hamilton	Aug. to Sep.				
			Lithgow	,,	Wilkinson	21 November				
			Warrah	,,	E. Merewether	15 September				
		Reedy Creek	Jugiong	,,	G. Sheaffe	28 ,,				
,,	rutans	Hunter's Hill	Sydney	,,	Fitzgerald	June	*Victoria*, Portland Bay, Mueller; E. Gippsland, Walter. *Queensland*, Brisbane River, Moreton Bay, Bailey. *Tasmania* generally, J. D. Hooker; Port Dalrymple, Paterson. *South Australia*, Mount Gambier, Mueller (some of the above may refer rather to P. hispidula).	1	6	5
		Bulli	Illawarra	,,		,,				
		Newport	Pittwater	,,		,,				
		Mount Wilson	Blue Mountains	,,						
			Newcastle	,,	E. Merewether	29 August				
			Bowral	,,	G. Sheaffe	6 October				
,,	obtusa	Hunter's Hill	Sydney	,,	Fitzgerald	March	*New South Wales*, C. Stuart. *Tasmania*, in the north generally, J. D. Hooker; Southport, C. Stuart.	1	6	7
		Mount Wilson	Blue Mountains	,,	,,	23 February				
		Redbank Creek	Picton	,,	,,	30 March				
		Newport	Pittwater	,,	,,	,,				
		Gibben	Port Hacking	,,	,,	April				
		Ham Common	Richmond	,,	Dr. Woolls					
,,	ophioglossa	Hunter's Hill	Sydney	,,	Fitzgerald	March	*Queensland*, Port Curtis, R. Brown; Brisbane River, Mueller.	1	6	4
		Bald Head		,,	,,	April				
,,	parviflora	Long Bay	Sydney	,,	,,	March	*New South Wales*, Aitken Creek, A. Cunningham. *Queensland*, Brisbane River and Moreton Island, Mueller. *Victoria*, Wilson's Promontory, Mueller. *Tasmania*, Port Dalrymple, R. Brown; Huon River, Oldfield; Hobart, J. D. Hooker; Chesnut, Archer.	1	7	7
		"The Points"	Picton	,,	,,	April				
		Hassan Walls	Bowenfels	,,	,,	March				
		Mount Wilson	Blue Mountains	,,	,,	14 March				
			Bowral	,,	G. Sheaffe	April				
,,	pedoglossa	Long Bay	Sydney	,,	Fitzgerald	June		1	3	5
,,	pedunculata	Hunter's Hill	,,	,,	,,	September	*New South Wales*, Grose River, Miss Atkinson. *Tasmania* generally, J. D. Hooker; Port Dalrymple, R. Brown.	1	5	6
			Pittwater	,,	,,	,,				
		Mount Wilson	Blue Mountains	,,	,,	25 October				
			Newcastle	,,	E. Merewether	29 August				
			Bowral	,,	G. Sheaffe	6 October				
,,	reflexa	Hunter's Hill	Sydney	,,	Fitzgerald	March	*New South Wales*, New England, C. Stuart; Mudgee, Taylor. *Victoria*, Grampians and Wimmera, Mueller; Little River, Fullagar; East Gippsland, Walter. Western Australia, Vasse River, Oldfield; Hampden, Clarke; Grenough Flats, C. Gray.	1	5	7
		Mount Wilson	Blue Mountains	,,	,,	14 March				
		Bushranger's Cave	Picton	,,	,,	April				
,,	Var. A	Biraganbil	Guntawang	,,	A. G. Hamilton	April to June				
,,	Var. B	Beaudesert Hills	,,	,,	,,	,,				
			Moruya	,,	Bell	27 June				
			Freemantle	W.A.	Fitzgerald	22 July				
		Freshwater Bay	Perth	,,	,,	August				
		Mount Lofty	Adelaide	S.A.	,,	September				
,,	rufa	Hunter's Hill	Sydney	N.S.W.	,,	November		1	2	8
			Guntawang	,,	A. G. Hamilton	Sept. to Nov.				
			Boorowa	,,	G. Sheaffe	30 October				
			Lithgow	,,	Wilkinson	17 November				
		Reedy Creek	Jugiong	,,	G. Sheaffe	28 September				
,,	striata		Yass	,,	S. A. Fox	May		1	3	5
,,	squamata	Rowel Swamp	Erina	,,	Fitzgerald	1 November		1	6	6
			Cootamundra	,,	,,	November				
		Beaudesert Hills	Guntawang	,,	A. G. Hamilton	Sept. to Nov				
,,	truncata		Mittagong	,,	E. Daintrey	,,		1	4	3
,,	Woolsii	Ham Common	Richmond	,,	Dr. Woolls	,,		1	2	8
			Mobong	,,						
		Beaudesert Hills	Guntawang	,,	A. G. Hamilton	Oct. to Nov.				
			Boorowa	,,	G. Sheaffe	23 November				
			Golgong	,,	Wilkinson	10 November				
Saccolabium	Hillii	Cedgee	Tweed River	,,	J. Guilfoyle	October	*New South Wales*, Clarence River, Beckler, *Queensland*, Brisbane River, Mueller and Bailey.	1	2	9
Sarcochilus	divitiflorus	Dongay Creek	Macleay River	,,	Fitzgerald	,,		1	6	10
			Bellinger River	,,	,,	November				
			Brisbane River	Q.	F. M. Bailey (Mueller)					
,,	falcatus	Clybucca Creek	Macleay River	N.S.W.	Fitzgerald	,,	*New South Wales*, Hunter, Paterson, and Williams Rivers, R. Brown.	1	5	3
		Minnamurra River	Kiama	,,	,,	,,				
			Wollongong	,,	,,	,,				
		Hastings River	Port Macquarie	,,	,,	,,				
			Mount Dromedary	,,	O. Reader (Mueller)					
,,	Fitzgeraldi	Narou Falls	Bellinger River	,,	Fitzgerald	,,		1	3	3
		Mount Warning	Tweed River	,,	J. Guilfoyle	,,				
,,	Hillii	Stone-quarry Creek	Picton	,,	Fitzgerald	,,	*New South Wales*, Camden River, and Parramatta, Dr. Woolls; Hastings and Clarence Rivers, Beckler. *Queensland*, Brisbane River, W. Hill; Rockhampton, Thozet and O'Shanesy.	1	5	5
		Bell Bird Creek	Nepean River	,,	,,	25 September				
,,	Montanus	Mount Banda Banda	Macleay River	,,	,,	October		1	5	3
		Mount Wilson	Blue Mountains	,,	,,	November				
		Mount Tomah	,,	,,	,,	,,				
			Bellinger River	,,	,,	October				
,,	olivaceus	Taylor's Arm	Nambucca River	,,	,,	November	*New South Wales*, Hastings and Clarence Rivers, Beckler. *Queensland*, Rockingham Bay, Dalbasty; Moreton Bay, W. Hill.	1	5	3
		Bulli Pass	Illawarra	,,	,,	,,				

* With smooth labellum.

Genus.	Species.	Sub-locality.	Locality.	Colony.	Collector	Time of flowering.	Localities recorded in the *Flora Australiensis*	Australian Orchids. Vol.	Part.	No. of Plate.
Sarcochilus *continued.*	olivaceus *continued.*	Yarraba	Macleay River	N.S.W.	Fitzgerald	November				
			Mount Dromedary	,,	Miss M. Bate (Mueller)					
,,	parviflorus	Redbank Creek	Picton	,,	Fitzgerald	October	*Victoria*, Apollo Bay, Mueller; Dandenong Range, Taylor; *Tasmania*, Emu Bay, Black River, Circular Head, Great Swanport, Gunn and Milligan.	1	3	4
		Hunter's Hill	Sydney	,,	,,	November				
		New Port	Pitt Water	,,	,,	,,				
		Mount Tomah	Blue Mountains	,,	,,	,,				
		Fern-tree Gully	Melbourne	V.	,,	,,				
Spathoglottis	Paulinæ		Cape Sidmolth	Q.	Dr. Curdie (Mueller)	February	*Queensland*, Rockingham Bay, Dallachy	1	6	8
			Cape Granville	,,	Ready (Mueller)	,,				
Spiranthes	Australis	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	March	*New South Wales*, Blue Mountains, Miss Atkinson; New England, C. Stuart; Clarence River, Beckler; Richmond River, Fawcett. *Victoria*, Mitta Mitta, Broadrib, and Snowy Rivers, Lake Omeo, Mueller; Portland, Cronch. *Tasmania*, Circular Head, Gunn; Cheshunt, Archer; Swanport, Story.	1	2	1
			Bellinger River	,,	,,	,,				
			Lake George	,,	,,	,,				
			Macleay River	,,	,,	,,				
			Bowenfels	,,	Wilkinson	22 ,,				
			Alps	N.S.W. and V.	Mueller					
			Condamine River	Q.	C. Hartmann (Mueller)					
Thelymitra	carnea	Hunter's Hill	Sydney	N.S.W.	Fitzgerald	September	*Victoria*, Wendin Vale, Robertson, Port Phillip, C. French. *Tasmania*, Hobart, Gunn; Georgetown, and Cheshunt, Archer; Southport, C. Stuart.	1	6	2
			Liverpool	,,	,,	,,				
		New Port	Pitt Water	,,	,,	,,				
		Mount Wilson	Blue Mountains	,,	,,	25 October				
			Parramatta	,,	Dr. Woolls			1	4	1
,,	circumsepta	Mount Tomah	Blue Mountains	,,	Fitzgerald	December		1	4	1
,,	longifolia	Hunter's Hill	Sydney	,,	,,	September	*New South Wales*, Illawarra, Backhouse;	1	6	2
			Bethungra	,,	,,	1 October	*Victoria*, Forest Creek, Mount Disappointment, Wilson's Promontory, Nangatta Range, Mueller; Grampians, Fisher; E. Gippsland, Walter. *Tasmania* (generally), J. D. Hooker.			
			Lithgow	,,	Wilkinson	6 November				
			Guntawang	,,	A. G. Hamilton	Sept. & Oct.				
		Mount Lofty	Adelaide	S.A.	Fitzgerald	24 October				
,,	media	Hunter's Hill	Sydney	N.S.W.	,,	October		1	4	1
				T.	(T. ixioides of Hooker)					
,,	megcalyptra	Deniliquin Station	Deniliquin	N.S.W.	Fitzgerald	25 September		1	5	2
			Guntawang	,,	A. G. Hamilton	Sept. to Oct.				
			Boorowa	,,	G. Sheaffe	30 October				
			Yass	,,	C. Jenkins	9 October				
,,	nuda	Hunter's Hill	Sydney	,,	Fitzgerald	September		1	5	2
			Albany	W.A.	,,	20 ,,				
		Marbleup	Wilson's Inlet	,,	,,	30 ,,				
		St. Werburgh	Hay River	,,	,,	8 October				
		The Bows	Northampton	,,	,,	25 August				
		Mount Lofty	Adelaide	S.A.	,,	24 October				
,,	pauciflora	Hunter's Hill	Sydney	N.S.W.	,,	23 September		1	6	2
		Mount Wilson	Blue Mountains	,,	,,	25 October				
		Mount Lofty	Adelaide	S.A.	,,	24 ,,				
			Albany	W.A.	,,	20 September				

From Nature and on Stone by R.D.Fitzgerald F.L.S.

CALADENIA

Carnea

Alba

Printed at the Government Printing Office, Sydney, N.S.W.
December 1880.

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Caladenia alba. (*R. Brown.*) Caladenia carnea. (*R. Brown.*)

These plants afford a good illustration of a question that has often suggested itself to me in the examination of orchids, and one equally applicable to other orders,—whether there are not varieties or species (hardly recognized even as varieties) that are in reality as distinct from each other as the most unquestioned species; but from their departure from each other being of a *constitutional* character (not to be marked by a bract or a gland) are overlooked or disregarded. In support of this suggestion of *innate distinctness*, I may here give the result of a long series of experiments in the hybridization of Hibiscus. No botanist has, I believe, ever thought of including *H. divaricatus*, *H. heterophyllus*, *H. splendens*, and *H. Fitzgeraldi*, in one species, yet they are crossed freely and the offspring are fertile with the original plants and amongst themselves, with no apparent tendency to sterility or relapse to either parent, at least so far as I have been able to test them, that is, to the fifth generation. All attempts, however, to cross any of them with *H. diversifolius*, *H. mutabilis*, or *H. manihot*, or the latter amongst themselves, has been without success. The reason I believe to be that they have a constitutional characteristic (quite as marked in its way as any outward specific distinction) of repugnance to other species, which may possibly lie in the pollen and be consequently inappreciable. A further illustration of innate distinction that cannot be found in dried specimens is afforded by the hybrids between *H. splendens* and *H. Fitzgeraldi*. *H. splendens* flowers early in the morning; *H. Fitzgeraldi*, in the evening; the hybrids in the middle of the day. Thus marking the force of an externally inappreciable distinction. In the case of *Caladenia alba* and *C. carnea*, it would I think be impossible to describe positively the difference between them, yet I believe them to be as distinct as many recognized species, and I do not think that I should ever pick the one in mistake for the other. The only distinction of a specific character however, that appears to be constant, is that the labellum is broader and does not clasp the column to the same extent in *C. alba* as in *C. carnea*. There is, however, a constitutional difference in their time of flowering, *C. alba* being always before *C. carnea*, and the general distinctions are that *C. alba* is white, though sometimes pink; that *C. carnea* is pink, though perhaps sometimes white; that *C. alba* is the larger flower, and that its column is not generally marked or at least barred, though sometimes blotched, and the same may be said of the labellum. Such cases as this deserve more consideration than they generally receive, for who can say whether *C. alba* is a variety or a species? Yet here, if anywhere, and in the thousands of doubtful species (in great part for convenience and to escape the difficulties of determination) called varieties, and to be found in almost every genus, rests the fulcrum of the Darwinian theory, and the proof or otherwise of change so often demanded by its opponents.

On one occasion I had the pleasure of seeing *Caladenia alba* actually fertilized by an insect. A flower was observed to tremble, and on examination it was found that a fly had alighted upon its labellum, was by its spring carried against the stigma and adhering to it struggled violently to escape, and thereby withdrew the pollen-masses from the anther and smeared them over the stigma. This instance, in my opinion, goes far to show that though the pollinia in this and many other species may, without fertilizing the flower, be easily removed by touching the disc or discs with the point of a pin, the operation is not by any means so neatly performed by an entrapped insect, and the consequence is that the flowers are impregnated by their own pollen.

C. alba flowers in August, and is to be found in shady forests generally, on moderately good soil.

C. carnea flowers in September, and is often to be procured on barren hill-tops and in the crevices of rocks, as well as in open forests.

EXPLANATION OF PLATE.

Caladenia carnea. Fig. 1. Labellum, from the front and back. 2. Column, from back, side, and front. 3. Column and labellum, from the side. 4. Pollen-masses, from the edges. 5. Pollen-masses.

Caladenia alba. Fig. 1. Column, from the front. 2. Column, from the side. 3. Column, from the back. 4. Labellum, from below. 5. Labellum, from above. 6. Glands of the disc. 7. Glands at the base of the labellum. 8. Top of column, from the side. 9. Top of column, from the front. 10. Pollen-masses. 11. Column and labellum, showing how a fly is impelled against the stigma by the upward spring of the labellum.

Genus Cœlandria. (*Fitzgerald.*)

The genus Dendrobium cannot I think be made to include the plant which I have consequently named *Cœlandria* ("*Smilliæ*"). The habit is not altogether that of Dendrobium, the leaves being more numerous and thin, the short axillary racemes, on a thick peduncle, are not those of a Dendrobium, and the labellum and column are altogether distinct. In the true Dendrobiums the labellum will be always found to be articulate, indicative of a distinct method of fertilization. In this proposed genus it is united to the column, forming with it a nectary which contains honey (absent in all the species of Dendrobium I have examined). The column is not smooth throughout (as in Dendrobium) but deeply divided transversely. The stigma is not a chamber, but a shield within a chamber. The labellum is not shaped like that of a Dendrobium and is without the longitudinal raised plaits, but on the contrary has a transverse bar which fits into a transverse groove in the column, and the pollen-masses instead of being formed like grains of wheat are united into a thin hollow scale easily resolvable into four narrow hollow scales, and from this peculiarity I have named the genus. Immediately above the stigma and resting upon it, in a depression, is a soft white waxy mass (absent in Dendrobium) which may be considered a rostellum, and on this the concave pollinia rest, are removed with at least a portion of it if it be touched, or probably leave it, and remain in the anther, if the anther be drawn back from behind. The pollen-masses, unlike those of Dendrobium (which are, I believe, invariably white or yellow), are of a bright red-brown.

I have made a comparison with Dendrobium rather than given a description of Cœlandria, as I have no opportunity of comparing with *C. Smilliæ* any of the other species which I think should probably be included with it. Among them are those named *D. agrostophyllum*, *D. viridirosewm*, *D. mohliamum* (Tab. XCI, Flora Viticusis, page 303), from Mr. Darwin's description, and the representation of the column, &c., given in his "Fertilization of Orchids," page 139, possibly *D. chrysanthum* and probably others now included in Dendrobium on the collation of which the characteristics would necessarily require modification.

CŒLANDRIA — Smilliæ

Cœlandria Smilliæ. (*Fitzgerald.*)

(Dendrobium Smilliæ, *Mueller.*)

To Sir William M'Arthur I am indebted for the opportunity of figuring this species, which has flowered in his orchid-house. It appears to me to be fertilized by insects in a totally distinct method from Dendrobium, in which as in many other genera the labellum attached by an elastic hinge acts against the weight of an insect and impels it against the stigma. In this species the labellum is included within the lower sepals (fig. 10) and adheres to the column, so as with it to form a nectary (figs. 11 and 12) in which honey is secreted. In the end of the labellum is a groove (figs. 1 and 8), and if a bristle be pushed down through this groove and gently withdrawn, the soft waxy matter (figs. 5 and 12), which rests on the stigma and on which the pollen scales lie, adheres to the bristle and removes the pollen scales, which are driven back upon the stigma by the constant pressure of the labellum or are brought away upon the bristle. In Nature this operation is, I should think, performed by the proboscis of some large moth or butterfly when probing to reach the honey at the base of the column. *Cœlandria Smilliæ* flowers in November, and is found in North-eastern Australia.

EXPLANATION OF PLATE.

Cœlandria Smilliæ. Fig. 1. Labellum, from the side, back, and front. 2. Top of column, from the front, anther raised. 3. Pollen-masses. 4. Pollen-masses on rostellum. 5. Stigma, rostellum, and pollen-masses. 6. Column, from the side. 7. Column, from the front. 8. Back of column and top of labellum. 9. Flower, from the back. 10. Flower, from the front. 11. Labellum and column, from the side. 12. Labellum and column, from the side, half of labellum and one wing of column removed.

DIURIS

Dendrobioides

Pedunculata

Diuris pedunculata. (*R. Brown.*) Diuris dendrobioides. (*Fitzgerald.*)

Diuris pedunculata varies much in habit, being sometimes very slender and at others robust—the one belonging apparently to the coast, the other to the interior. The flowers of the larger form are much more open than those of the slender kind, and the labellum much larger in proportion (fig. 3), the central lobe being less rhomboidal; but the pubescence of the labellum easily distinguishes it from all other species. *D. lævis* (which I discovered in Western Australia) is the nearest allied, but differs from it specially in the smoothness of the labellum and the spiral form of the leaves. In one specimen of *D. pedunculata*, found at Deniliquin, the pollen-masses were attached to the back of the stigma close to the rostellum (fig. 4), and this plant would thus no doubt have produced seed without the removal of the pollinia, or pollen being placed upon the front of the stigma. This single instance shows that in some cases *Diuris* may be self-fertilized by contact of the back or edge of the stigma with the pollen of the same flower, and the relationship is established with *Orthoceras*, in which genus fertilization always takes place by contact of the pollen-masses with the back of the stigma, close to the rostellum. *D. pedunculata* is generally but not numerously distributed in New South Wales; it grows in stiff clay, and flowers in September and October.

Diuris dendrobioides may not be considered an established species, as I only found two plants at Cunningham's Plains, near Murrumburrah, and Mr. A. G. Hamilton has obtained what he considered to be the same plant at Gundawang, near Mudgee. The two plants observed by me grew close together in a field, where numbers of *D. elongata* and *D. pedunculata* were in flower, and they may have originated from a cross between the two species. They had, however, some characters very distinct from both, such as the breadth, shortness, and colour of the lower sepals. They are, I think, worthy of a figure and a name, whether others are found elsewhere or not. If not, it is very interesting as an example of a very distinct form, of which two examples at least have existed, and which, if it could establish itself and become numerous, would undoubtedly be considered a species.

The date of flowering was 2nd of October.

Description of Diuris Dendrobioides.

Rather stout, about ten inches high. Leaves, three or four at the base of the stem, linear-oblong, obtuse, three or four inches. Flowers (resembling those of a *Dendrobium* rather than a *Diuris*), four or five, dark red-brown, with light edges. Petals about eight lines, oblong, undulate, broadly stipitate. Dorsal sepal broad, undulate, embracing the column, about five lines long. Lateral sepals petal-like, dark red-brown, broadly lanceolate, acute, about one inch. Labellum three-lobed from the base, the lateral lobes broadly cuneate, denticulate at the ends. Central lobe linear at the base, but suddenly expanded at half its length; lower part broadly triangular, with revolute edges and a raised line along the centre. Two raised plates on the linear part of the labellum bent towards the central raised line, which extends to half their length. Wings of the column denticulate, shorter than the anther.

EXPLANATION OF PLATE.

Diuris pedunculata. Fig. 1. Labellum, from the front. 2. Labellum, from the side. 3. Labellum (natural size), from robust form. 4. Stigma, showing pollen-mass adhering to the left lobe. 5. Column, from the front. 6. Column, from the back. 7. Column, from the side, anther drawn back.

Diuris dendrobioides. Fig. 1. Labellum, from the side. 2. Labellum, from the front. 3. Column, from the back. 4. Column, from the front. 5. Pollen-masses.

DIPODIUM Punctatum.

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Genus Dipodium. (*R. Brown.*)

This genus is intermediate between the epiphytes and terrestrial orchids; the form of the column, the anther, pollen-masses, and labellum, being those of the former—the habit that of the latter.

It is in Australia a small genus, two only being known, but, as might be expected from its approach to the epiphytes, it is also found (according to Bentham) in New Caledonia, Eastern Archipelago, and East Indies, and like the epiphytes is dependent on insects for its fertilization.

Dipodium punctatum. (*R. Brown.*)

This orchid is known by many local names, such as "native hyacinth," "spotted lily," &c., and is frequently to be seen in the hands of Christmas holiday-makers, who cannot fail to notice its spike of spotted flowers growing leafless from the baked ground, at the foot of some gnarled gum-tree—almost the only flower in that dry season, and all the more remarkable for the specially barren situation it elects to grow in. *Dipodium punctatum* is probably a parasite on the roots of trees; but it is very difficult to determine absolutely whether tubers such as those of this orchid really derive nourishment from or have been nourished by the roots of other plants or trees, or have merely grown in juxtaposition and adapted themselves to them as they do to stones in gravelly situations. Among the orchids, respecting which it would be interesting to ascertain whether they are always or have been at an early stage parasitical, are *Gastrodia*, *Galeola*, and *Prasophyllum flavum*, and among other Australian families the Western Australian *Nuytsia*, and *Atkinsonia* of New South Wales.

The light greenish form (fig. B) is from specimens kindly sent to me from Guntawang, near Mudgee, by my friend A. G. Hamilton. It may possibly be *D. squamatum*, referred to (in a note) by Bentham in the Flora Australiensis, as from New Caledonia, and differing from *D. punctatum* "chiefly in the more closely imbricate, appressed, and acute scales, at the base of the stem," but I have never seen a specimen of the New Caledonian plant. *D. punctatum* is distributed over the whole coast country of Australia, with the exception probably of Western Australia, and flowers, as previously stated, in December.

EXPLANATION OF PLATE.

A. *Dipodium punctatum*. Fig. 1. Seed capsules, part of one removed. 2. Column and part of perianth. 3. Labellum, from the front. 4. Top of column. 5. Top of column, anther and pollen-masses removed. 6. Pollen-masses.

B (possibly *Dipodium squamatum*). Fig. 1. Column, from the side and front. 2. Labellum, from the front, and column, from the back. 3. Labellum and column, from the side.

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DENDROBIUM Phalænopsis

Dendrobium phalænopsis. (*Fitzgerald.*)

This beautiful Dendrobium has been imported by Captain Broomfield, and flowered in his green-house. It is a splendid addition to the charming lilac Dendrobs procured within the last few years from Northern Australia and New Guinea. It is closely allied to *D. bigibbum*, *D. superbiens*, and *D. Goldii*. It is easily distinguished from *D. bigibbum* by the absence of the convex form in the flowers—of the cluster of white glands on the disk of the labellum—of the emarginate termination of the labellum—and the drooping carriage of the flowers; from *D. superbiens* by the broadness of the parts of the perianth, and the sepals not being obtuse or undulate, and the absence of ridges or plates on the labellum, which in *D. superbiens* are similar to those in *D. undulatum*, which *D. superbiens* resembles in all but colour. It is also by no means so robust a plant as *D. superbiens*. *D. Goldii*, of New Guinea, appears from the figure in the "Garden" (Sep. 14, 1878, No. 356)—for I have seen no description—to be unlike it in the form of the labellum, the narrowness of the parts of the perianth, the drooping habit of the flowers, length of spikes, form of the leaves, and banded stems. I have given this finest of the Australian Dendrobs the name of *phalænopsis* from the likeness of its flowers to moths and also its likeness to the genus Phalænopsis, the flowers having a strong resemblance to those of that genus. It was obtained in Northern Queensland, and flowers in April. (The plant from which the description was taken has again flowered, producing three hundred flowers.)

Description (*published in the Gardener's Chronicle of* 10 *July*, 1880, *Vol. XIV, No.* 341).

Stems about twenty inches, slightly contracted towards the base. Leaves, about eight or ten on the upper eight inches of the stem, lanceolate, reaching five inches. Racemes at least half the length of the stems, terminal on peduncles of about ten inches. Flowers, about fifteen, on pedicles of about one inch, lilac, two inches to two and a half across. Sepals, lanceolate, acute, one inch long and about five lines broad. Petals obovate, acute, one inch broad. Labellum one inch long, acute, with broad wings meeting over the column-base, forming at the hinge a second spur which reaches half an inch and is curved and compressed at the sides. No calli or plates on the labellum, which is only slightly ridged at the base. Pollen-masses more concave than is general in the genus.

EXPLANATION OF PLATE.

Fig. 1. Flower and buds. 2. Pollen-masses. 3. Labellum and column, from the side. 4. Labellum, from above and from the point. 5. Column, from the side. 6. Labellum, from the front.

From Nature and on Stone by R D Fitzgerald F L S

DENDROBIUM Beckleri

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Dendrobium Beckleri. (*Mueller.*)

THERE is some confusion with respect to *Dendrobium Beckleri* (Mueller), *D. Mortii* (Mueller), and *D. Bowmanii* (Bentham), but as specimens I obtained at the Macleay River, and which are referred to in the Flora Australiensis as *D. Mortii*, were considered by Baron Mueller to be *D. Beckleri* as named by him, and as they agree with the description of that species, I am compelled to differ from the "Flora" in attaching the name of *Beckleri* to the figure, which is taken from the plant collected on the Macleay, and from which the flowers were originally sent to Baron Mueller. A leading distinction between this species and *D. Mortii* (of which I believe *D. Bowmanii* is but a synonym) is that *D. Mortii* produces its smaller flowers in pairs, the peduncles being two-flowered. *D. Beckleri* grows occasionally on rocks, but more frequently on the topmost branches of "oaks" (*Casuarina glauca*) which stand in the beds of creeks, or of the densely crowded white-stemmed brush timbers of the "cedar scrubs" on alluvial flats and river banks. Its long straggling branches are often four feet long. Like most of our Dendrobs its flowers are sweet-scented, and are produced in November.

EXPLANATION OF PLATE.

Dendrobium Beckleri. Fig. 1. Labellum, from the back. 2. Labellum, from the front. 3. Column, from the front, with part of perianth, (labellum removed).

PTEROSTYLIS

Parviflora

Barbata

Pterostylis parviflora. (*R. Brown.*) Pterostylis barbata. (*Lindley.*)

Pterostylis parviflora has numerous flowers, as in the section in which the labellums are excluded, but in it the labellum is included, and is much smaller in proportion to the size of the flowers than is generally the case—as is also the column. I believe that there is no real distinction between *P. parviflora* and *P. aphylla*. The principal difference between them would, according to the descriptions, appear to be that in the latter the flowers turn towards each other, but I think the distinction is not constant. The specimen from which the figure was taken grew at Bowenfels, but a smaller and greener form (which is I believe *P. aphylla*) is common on the Blue Mountains. Both are sometimes without radical leaves, and at others an offshoot from the base of the flower-stem produces leaves, and in both the flowers are generally turned towards each other, especially in the small green variety. *P. parviflora* flowers in March, and grows in swampy or wet flats on the mountains. I have found it at one place only near Sydney, at Long Bay, near Coogee.

Pterostylis barbata. This species should have been figured with *P. turfosa* of Western Australia rather than with *P. parviflora*, but when the drawing was made I had little expectation of obtaining that species. *P. barbata* has lost, or never developed, sensitiveness in the labellum, and in what way (if any) it assists in the fertilization of the plant I have not been able to discover. It may be that its likeness to an insect is in some way attractive. This is the only Australian species of *Pterostylis* extending into New Zealand, where it is very rare. A solitary plant, which I found on the summit of a hill at Cootamundra, is, I believe, the first procured in New South Wales, though it has been obtained in Victoria, South Australia, Western Australia, and commonly in Tasmania. It flowers in October.

EXPLANATION OF PLATE.

Pterostylis parviflora. Fig. 1. Column, from the front. 2. Top of column, wings removed. 3. Top of column, from the side, one wing removed. 4. Column, from the side. 5. Flower, from the back. 6. Flower, from the front. 7. Labellum, from the side. 8. Flower, torn open, showing proportion of column to perianth. 9. Column and labellum, from the side. 10. Pollen-masses. 11. Flower, from the side.

Pterostylis barbata. Fig. 1. Labellum, from the front. 2. Top of labellum, from the side. 3. Labellum and lower sepals, from the side. 4. Stigma and part of column. 5. Column, from the side. 6. Column, from the front. 7. Column, from the side, one wing removed. 8. Pollen-masses.

CALADENIA

Arenaria

Concolor

Caladenia arenaria. (*Fitzgerald.*) Caladenia concolor. (*Fitzgerald.*)

Caladenia arenaria is the "spider orchid" of the Edwards, Murrumbidgee, Yanko, and Columbo Rivers, where it is to be found growing on the sand-hills among the pines (*Frenela robusta*). It is conspicuous from the large size of the flowers and their grey colour. It flowers in September.

Caladenia concolor I have only obtained from the granite hills near Albury, and it is very remarkable for the darkness and uniformity of colour of the flower and stem. The edges of the labellum are much more acutely divided than in *C. arenaria*, and the column much narrower and simpler in form. It flowers in October.

Description.

Caladenia arenaria. A rather robust species, about one foot high. Leaf, oblong-linear, hairy, about six inches. Flowers, one or two, of a light grey colour. Sepals about three inches long, dilated at the base and tapering into a fine point. Dorsal sepal erect. Petals similar to sepals but shorter, about two inches. Labellum, without lobes, about nine lines long and five broad (on a rather long claw), lanceolate, recurved, the edges for about four-fifths of their length from the point crenate, the points being almost clavate. Calli of the labellum linear, bent forward, in four rows or six rows, near the base. Column about seven lines, curved, winged from above the base of the anther to the ovary. The upper part of the wings broad and undulate. Two small globular glands at the base of the column. Point of the anther short.

Caladenia concolor. A rather robust species, hardly one foot high. The flower and stems of a uniform dark prune colour. At least generally one-flowered, sepals and petals about two inches, dilated at the base and tapering to a fine point. Labellum without lobes, about seven lines long and four broad, lanceolate, recurved, the edges for about four-fifths from the point acutely serrate. Calli of the labellum linear, bent forward in four rows, or near the base six rows. Column slightly curved, winged from below the anther to the base, narrower and of more uniform breadth than in *C. arenaria*. Two large globular glands at the base of the column.

EXPLANATION OF PLATE.

Caladenia arenaria. Fig. 1. Labellum, from the back. 2. Labellum, from the side. 3. Labellum, from the front. 4. Calli of the labellum. 5. Column, from the side. 6. Column, from the back and front. 7 and 8. Pollen-masses. 9. Top of column, from the front.

Caladenia concolor. Fig. 1. Column, from the back. 2. Column, from the front. 3. Labellum, from the back. 4. Labellum, from the side. 5. Labellum, from the front. 6. Calli of the labellum. 7. Column, from the side.

CALADENIA filamentosa

ACIANTHUS Caudatus

Caladenia filamentosa. (*R. Brown.*) Acianthus caudatus. (*R. Brown.*)

This Caladenia is easily distinguished from the other "spider orchids" by its having only two rows of flat-topped calli on the labellum, which resemble the soles of stockinged feet. Dr. Woolls sent me specimens from Mudgee, but I have never seen it in New South Wales. In Western Australia it is very common, and has there a peculiarity of growing in clumps which does not belong to members of the genus except those of Western Australia, where many of the orchids spring from roots chained or strung together. This union of many individuals by a connection of their tubers, or rather this production of many united tubers or bulbs from which numerous flower-stems spring, may have originated in the benefit such union would afford in preventing desiccation in a country subject to drought. In the case of this species I have counted forty-two flower-stems which had their bulbs all united together and entangled in one mass. The habit adds much to the beauty of the species which possess it, as the flowers are brought together in pretty bunches. *Caladenia filamentosa* flowers in August.

Acianthus caudatus is figured with *Caladenia filamentosa*, in order to show the distinctions between the two closely allied genera by contrasting the most similar species. *Acianthus caudatus* is a rare orchid in the neighbourhood of Sydney, and appears to be rarer than it is, from the infrequency of its flowering. It is rather a mountain than a coast species, being very common on the Kurrajong and other parts of the Blue Mountains, probably on account of the lower temperature, as it is common in Tasmania. It flowers in August, though its congeners flower in the beginning of the winter (March and April), and it is to be found when near the coast in damp fissures in rocks, but in the mountains in shady forest.

EXPLANATION OF PLATE.

Caladenia filamentosa. Fig. 1. Top of column, from the front. 2. Top of column, from the side, two pollen-masses removed. 3. Labellum, from the front. 4. Labellum, from the back. 5. Pollen-masses. 6. Column, from the side. 7. Column, from the front. 8. Calli of the labellum. 9. Column and labellum, from the side.

Acianthus caudatus. Fig. 1. Flower, from the side. 2. Top of column, valves of the anther turned back, showing pollen-masses. 3. Top of column, from the front and side. 4. Column and labellum, from the front, with part of perianth.

From Nature by R.D.Fitzgerald F.L.S.

On Stone [illegible] J.Stopps

DENDROBIUM Moorei

Printed at the Surveyor General's Office Sydney N.S.W.
[illegible]

Teachers' Library

Dendrobium Moorei. (*Mueller.*)

This pretty Dendrobium, though very like *D. Kingianum* in habit, differs from all other Australian forms in its long nectary or spur and very peculiar petal-like labellum, which, unlike that of other species, is devoid of plates or glands and possessed of pointed lobes on the edges. It was named by Baron Mueller, in honor of C. Moore, Director of the Botanical Gardens, Sydney, from specimens I procured on the mountains at Howe's Island, in 1869, where I again obtained it in 1877. It does not belong to the low grounds of the island (to which it is peculiar), but clings to the precipices in the mountains and the mossy branches of trees which hang over the cliffs. When seen adhering to the black basalt of the chasms, the white waxy flowers, more like white hyacinths than orchids, make a beautiful contrast to the wildness of the scene. In the low grounds it is replaced by *D. gracilicaule*. It flowers in June and July.

EXPLANATION OF PLATE.

Dendrobium Moorei. Fig. 1. Top of column, from the front. 2. Top of column, from the side. 3. Labellum, from the side and front. 4. Flower, from the front (natural size). 5. Flower, from the front. 6. Column, from side and front. 7. Pollen-masses in anther, and pollen-masses.

PART 1.

JULY, 1875.

PART 2.

MARCH, 1876.

PART 3.

JUNE, 1877.

PART 4.

JULY, 1878.

PART 5.

OCTOBER, 1879.

PART 6.

JULY, 1880.

PART 7.

OCTOBER, 1882.